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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,249	04/13/2004	Brian Keith Long	000479.00124	5753
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/824,249

Applicant(s)

LONG, BRIAN KEITH

Examiner

Jonathan C. Weber

Art Unit

3641

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-42, 44-49, 52-61, 64-71, 74 and 76-87 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-42, 44-49, 52-61, 64-71, 74, and 76-87 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Pursuant to the response filed on 26 January 2009, the amendment to the claims have been entered into the instant application. No claims have been cancelled, no claims have been added, and claims 38-42, 44-49, 52-61, 64-71, 74, and 76-87 remain pending in the instant application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. **Claims 38-39, 42, 46-49, 52-53, 56-57, 60-61, 65-66, 69-71, 74, and 76-87** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,872,625 issued to Filley (Filley).

Regarding claim 38, Filley discloses a modular structure for receiving and transporting individuals or equipment, comprising: a frame formed from a plurality of frame portions (Figure 1, 9, Col. 4 Line 50); and a shell formed from a plurality of abutting armored panels and each of the abutting armored panels formed of a single piece and forming at least a portion of the interior and exterior surface of the modular structure (42 & 44, Figure 1, Col. 4 Line 60-62); each of the frame portions being secured to at least one of the armored panels to form discrete units (See Figure 1), the units being arranged to form the modular structure in a first configuration (See Figure 7),

the first configuration including a central unit (28, Figure 7) and a plurality of outer units (27 & 29, Figure 7), the outer units being removably connected to the central unit and protruding from the central unit (Col. 5 Line 36 – Col. 6 Line 64, See Figures 2-11), at least two of the outer units being substantially perpendicular to each other (See Figures 4 & 7), and the central and outer units being non-destructively separable to disassemble the modular structure (Col. 5 Line 36 – Col. 6 Line 64), wherein the units are configured and aligned to be interchangeable with units from other modular structures in at least a second configuration, wherein the first configuration is different from the second configuration (See Figures 7-11).

Regarding claim 39 & 53, Filley discloses wherein the modular structure comprises means for joining with another modular structure to form a larger modular structure (See Figures 7-11, Col. 7 Line 56—Col. 8 Line 11).

Regarding claim 42, 56 & 65, Filley discloses wherein a portion of the armored panels are configured to be removed from an interior of the modular structure to form ports (Col. 5 Lines 57-59).

Regarding claim 46, Filley discloses wherein at least one of the units is hinged to form an entry point of the modular structure (Access Port or Air-locked, air-locks involve doors with hinges).

Regarding claim 47, 60 & 70, Filley discloses wherein at least one of the units is configured to be removed from the modular structure to form a port in a side portion of the modular structure (Col. 5 Lines 57-59).

Regarding claim 48, 61 & 71, Filley discloses wherein at least one of the units includes an attachment area for mounting weaponry (Col. 7 Lines 41-55).

Regarding claim 49, 61 & 71, Filley discloses wherein at least one of the units includes an attachment area for mounting a crane (Col. 7 Lines 41-55).

Regarding claim 52, Filley discloses a modular structure for receiving and transporting individuals or equipment, comprising: a frame formed from a plurality of tubular frame portions, wherein the tubular frame portions are discrete and separable (See Figure 1); and a shell formed from a plurality of abutting armored panels, the frame and shell configured to form an elongate shape with a first end area and an opposite second end area, each of the abutting armored panels formed of a single piece and forming at least a portion of an interior surface of the modular structure and an exterior surface of the modular structure having no void between the interior surface and exterior surface (See Figures 1, 1A, & 2), each of the frame portions being secured to at least one of the armored panels to form discrete units (See Figure 1), the units being arranged: to form the modular structure, the modular structure including a first unit (28, Figure 7) and a plurality of second units (27 & 29, Figure 7), the second units being removably connected to the first unit and protruding from the first unit (Col. 5 Line 36 - Col. 6 Line 64, See Figures 2-11), wherein at least two of the second units being substantially perpendicular to each other (See Figures 4 & 7), and the first and second units being configured to be separated to disassemble the modular structure (Col. 5 Line 36—Col. 6 Line 64), at least one of the units having a hinged configuration to form an entry point of the modular structure (Col. 5, Line 57-59, Access Port or Air-lock, air-

locks involve doors with hinges), the entry point forming an opening in the modular structure that encompasses substantially all of the first end area (See Figure 1, 20). (Note the rejection of claim 38 for additional detail.)

Regarding claim 57, Filley discloses wherein the units are configured to be removed from the modular structure and joinable with another modular structure (Col. 5 Line 36 – Col. 6 Line 64, See Figures 7-11).

Regarding claim 66, Filley discloses wherein the modular sections are removable from the modular structure and configured to be joined with at least a third modular section to form a second modular structure (Col. 5 Line 36 – Col. 6 Line 64, See Figures 7-11).

Regarding claim 69, Filley discloses wherein the armored panels about each other (See Figures 1 & 1A).

Regarding claim 74, Filley discloses a modular structure for receiving and transporting individuals or equipment, comprising: a first frame formed from a plurality of frame portions (See Figure 1); a first shell formed from a plurality of armored panels (See Figure 1); the first frame, extending around the exterior of the first shell (See Figure 1), and first shell forming a first modular section having a bottom surface, a top surface and at least three sides (In view of Figure 1), each of the armored panels being formed of a single panel forming the first shell and forming at least a portion of the interior surface and exterior surface of the first modular section having no void between the interior surface and exterior surface (See Figure 1A), the first modular section being a center unit (In view of Figure 7, 28); first coupling means arranged on the first modular

section and configured for joining the first modular section with at least one other modular section (Col. 5 Line 36 - Col. 6 Line 64 & Col. 7 Line 56 – Col. 8 Line 11); [a second frame formed from a plurality of frame portions; a second shell formed from a plurality of armored panels; the second frame, extending around the exterior of the second shell, and second shell forming a second modular section having a bottom surface, a top surface and at least three sides, each of the armored panels being formed of a single panel forming the second shell and forming at least a portion of the interior and exterior surface of the second modular section having no void between the interior surface and the exterior surface; and second coupling means arranged on the second modular section and configured for joining the second modular section to at least the first modular section; a third frame formed from a plurality of frame portions; a third shell formed from a plurality of armored panels; the third frame, extending around the exterior of the third shell, and third shell forming a third modular section having a bottom surface, a top surface and at least three sides, each of the armored panels being formed of a single panel forming the first shell and forming at least a portion of the interior surface and exterior surface of the first modular section having no void between the interior surface and exterior surface; third coupling means arranged on the third modular section and configured for joining the third modular section with at least one other modular section] (In view of Figure 7, First unit indicated by reference 28, Second Unit indicated by reference 27, and Third Unit indicated by reference 29); the second and third modular sections being removably connected to the center unit and protruding

outward from the center unit (In view of Figure 7), the second and third sections being substantially perpendicular to each other (See Figures 4 & 5).

Regarding claim 76, 83, & 87, Filley discloses wherein the modular structure is capable of being formed into a cross shape (See Disclosure).

Regarding claim 77-78, 81-82, & 85-86, the [a)statements of intended use or field of use, b)"adapted to" or "adapted for" clauses, c) "wherein" clauses, or d) "whereby"] clauses are essentially method limitations or statements of intended or desired use. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference. See *In re Pearson*, 181 USPQ 641; *In re Yanush*, 177 USPQ 705; *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 512 USPQ 235; *In re Otto*, 136 USPQ 458; *Ex parte Masham*, 2 USPQ 2nd 1647.

See MPEP § 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ 2nd 1647

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. *In re Danly*, 120 USPQ 528, 531.

Apparatus claims cover what a device is not what a device does. *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ2d 1525, 1528.

As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

Regarding claim 79, Filley discloses wherein the modular structure includes at least four outer units (See Figures 7-11).

Regarding claim 80, Filley discloses wherein the first unit is a central unit (See Figure 7, 28).

Regarding claim 84, Filley discloses wherein the plurality of second units includes at least four units (See Figures 7-11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 40-41, 54-55, and 64** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,872,625 issued to Filley (Filley) in view of U.S. Patent 7,210,707 issued to Scroth (Scroth).

Regarding claims 40, 41, 54, 55, and 64, Filley does not disclose a seat having a four point harness secured within the modular structure.

Scroth teaches floor mounted helicopter seats having a four point harness. All of the component parts are known in Filley and Scroth. The only difference is the combination of the "old elements" into a single device by mounting them into the modular structure. Thus it would have been obvious to one having ordinary skill in the art to secure the seats within the modular structure, since the operation of the seat is in no way dependent on the operation of the other equipment of the structure to achieve the predictable results of the individual elements.

3. **Claims 44-45, 58-59, and 67-68** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,872,625 issued to Filley (Filley) in view of U.S. Pre-Grant Publication 2003/0148693 by Erb, Jr. et al (Erb).

Regarding claims 44, 45, 58, 59, 67, and 68, Filley discloses the use of a composite material for the structure that will be optimized toward lowering corrosion, radiation penetration, and thermal loss while providing pressure containment and debris rupture resistance (See Col. 7 Lines 49-55), but does not disclose that the panels comprise a fiber-reinforced polymer such as para-aramid fiber.

Erb discloses the use of an insulating fabric on various applications including spacecraft to improve the corrosion resistance of the space craft skin, which is a fiber-reinforced polymer that contains para-aramid fibers (See Summary of the Invention, Specifically Paragraph 0016 and Paragraph 0023).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Filley to create a modular spacecraft with the teachings of Erb to use an insulation layer, which is a fiber-reinforced polymer that contains para-aramid fibers. The suggestion/motivation for doing so would have been to provide the appropriate composite material as taught by Erb in the structure taught by Filley as was suggested by Filley in column 7 lines 49-55.

Response to Arguments

4. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. The added language of non-destructively separated in claim 38 overcomes the rejection of Skottowe. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan C. Weber whose telephone number is (571)270-5377. The examiner can normally be reached on Monday-Friday 7:30AM-4:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on (571)272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J. Carone/
Supervisory Patent Examiner, Art Unit 3641

/J. C. W./
Examiner, Art Unit 3641